CHAPTER 7: PAPER EJECTION SECTION

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1. Theory of Operation

1. Paper Ejection Mechanism

1. Paper Separation from the Drum

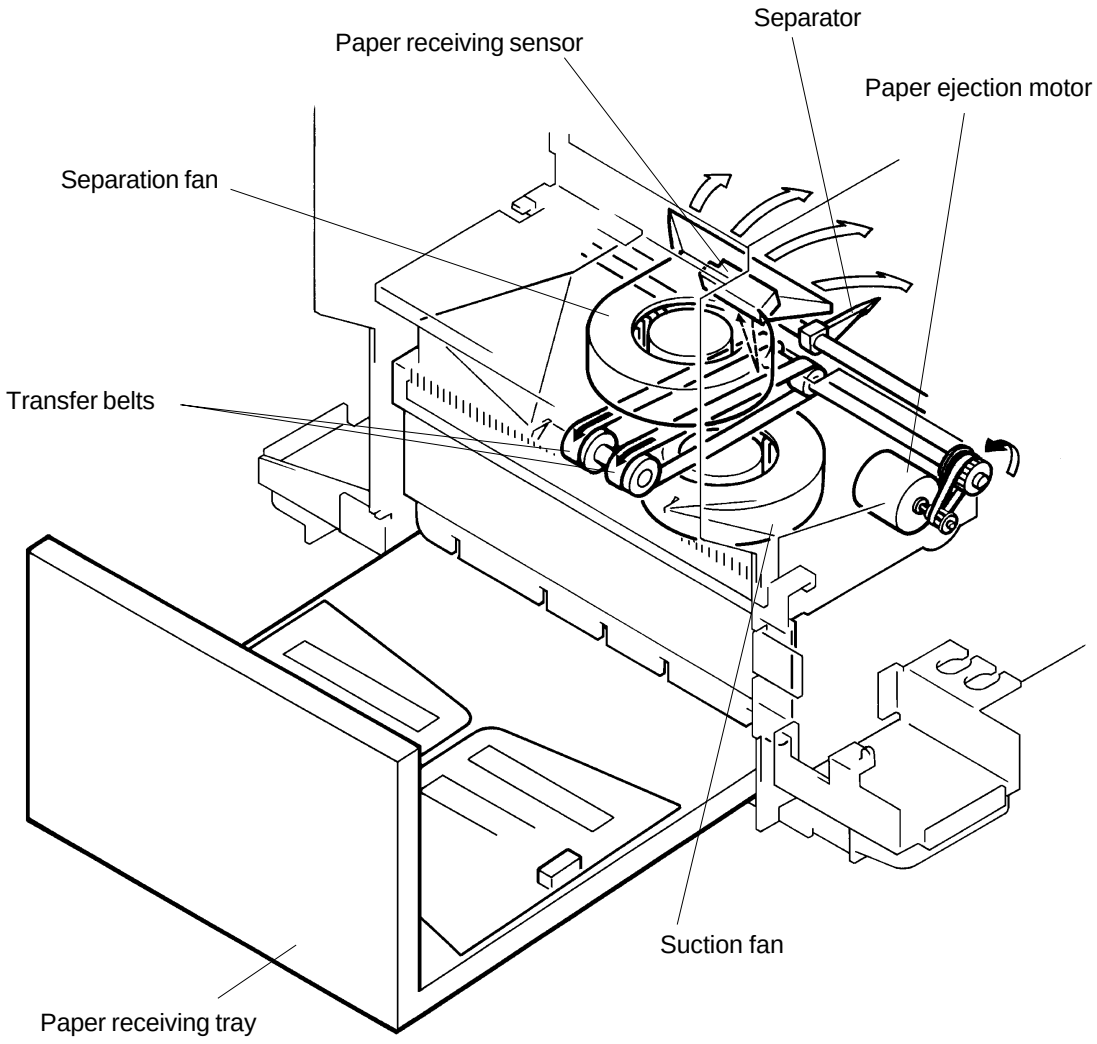
> The paper is separated from the Drum by the Paper separation fan and Separator.

2. Paper Ejection

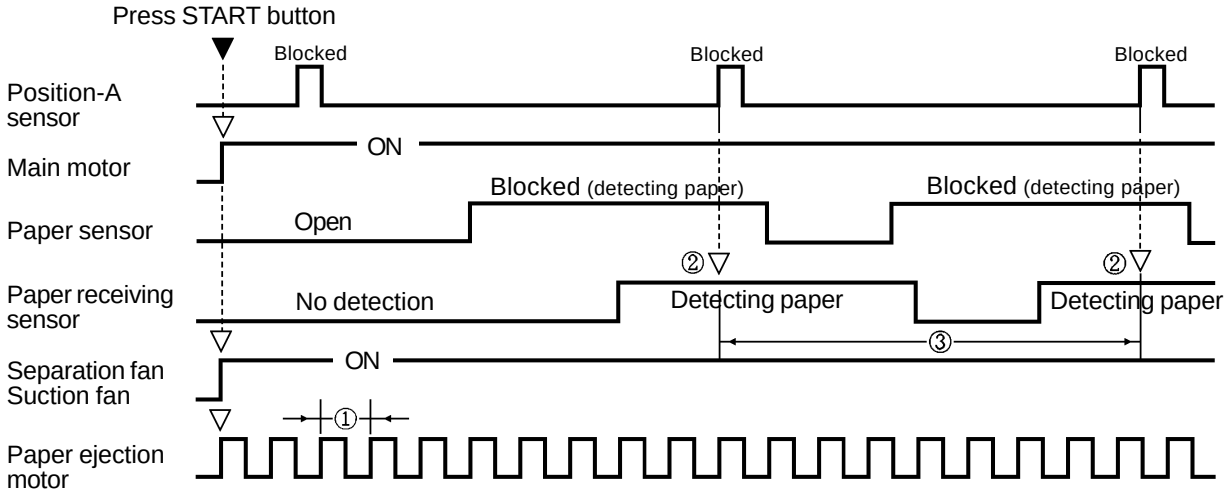
> Suction fan pulls the paper, separated from the Drum, on to the Suction unit.
> The Transfer belts on the Suction unit, driven by Paper ejection motor, ejects the paper onto the Paper receiving tray.

3. Paper Receiving Sensor

> Paper receiving sensor checks whether the paper is separated from the Drum and ejected correctly or jammed.



Paper Ejection Timing Chart



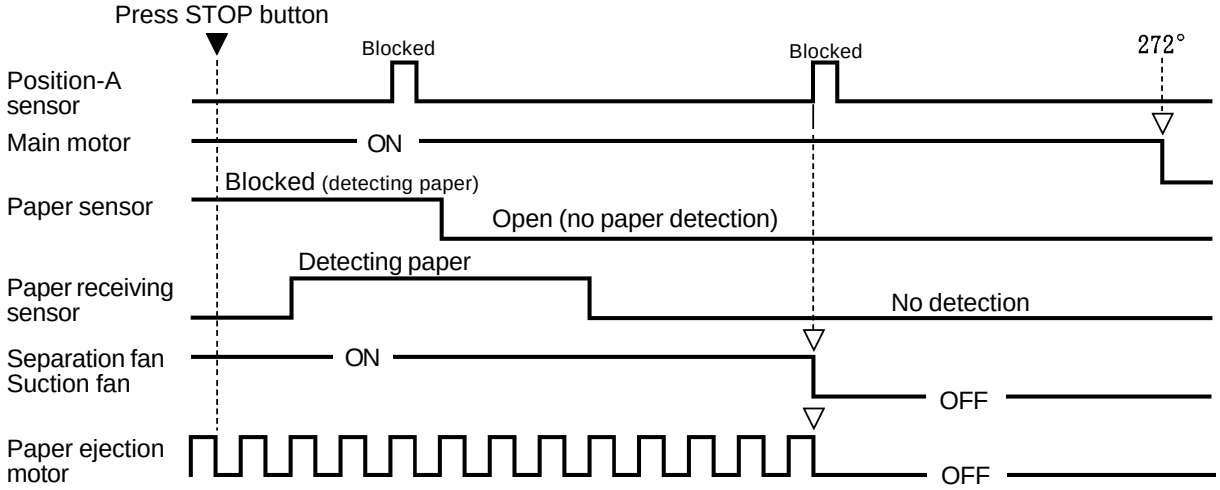
① The Paper ejection motor is turned ON and OFF repeatedly throughout the printing process.
The ON and OFF intervals change in accordance with the printing speed.
As a result, the change in the interval of the intermittent rotation of the Paper ejection motor changes the speed of the Transfer belts on the Suction unit. The belts run faster at faster printing speed.

Main motor speed (Printing Speed)	60 rpm	90 rpm	130 rpm
Paper ejection motor ON interval	20 ms	10 ms	20 ms
Paper ejection motor OFF interval	30 ms	10 ms	10 ms

② The Paper receiving sensor is checked to see whether it is detecting a paper at every Drum position-A.

③ From one Drum position-A to the next, the machine checks to see whether the paper is ejected out of the light path of the Paper ejection sensor.

Paper Ejection Timing Chart

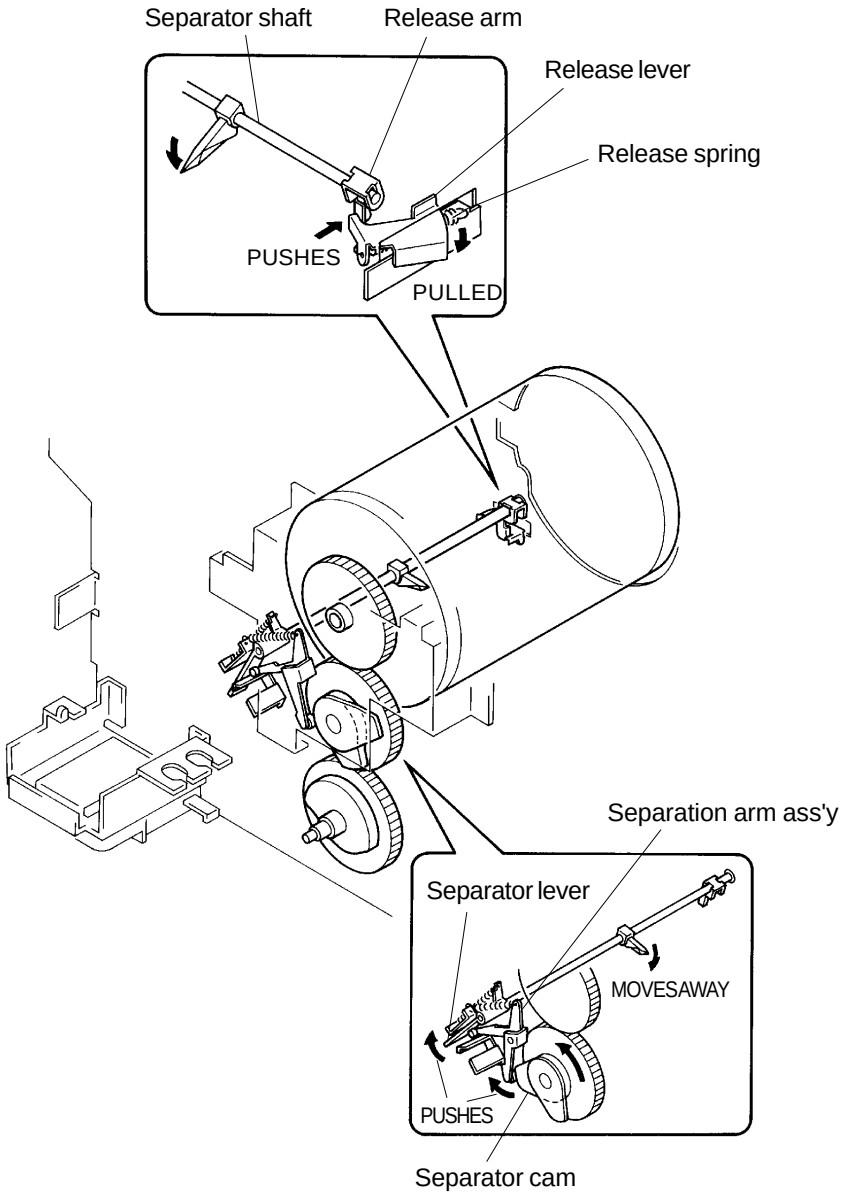


Note: If overload current is detected for **0.3 seconds** on the Paper ejection motor, Paper ejection motor lock message **[E 20]** is indicated.

2. Paper Separation Mechanism

1. Separator

> The tip of the Separator is close to the Drum when it separates a paper from the Drum. When the Clamp plate on the Drum comes close to the Separator, the Separator cam which is attached on the Intermediate cam pushes the Separator away from the Drum.

2. Separator Release Lever

> When the Drum is being pulled out, the Release lever becomes free and the Release spring pulls the Release lever.
> The Release lever then pushes against the Release arm and rotates the Separator shaft down.
> The rotation of the Separator shaft moves the tip of the Separator away from the Drum.